

11/28

## Perchlorate Meeting

### Questions

SDMS Doc ID 165996

- ① Map - differentiate radioactive / use.  
- add last updated date.
- ② Use of 3rd value in measurements
- ③ Distinction that of only ~~patients~~ using 10%  
of total going flat low high T4 and  
low TSH measured after lab
- ④ How frequent is T4 suppression in  
Flagstaff v. Yuma?
- ⑤ Aren't you only studying ~~newborns~~ w/  
unusual activity? Thyroid activity?
  - ↳ This is not indicative flat  
there is a problem or that  
those newborns would be  
outside range of normal thyroid  
function
  - ↳ Studying populations selectively.
- ⑥ Stat. analysis of T4 in 2 areas -  
med. in Yuma higher than med in Flagstaff
- ⑦ What was difference in untransformed values  
of TSH

- ⑧ What is considered abnormal TSH for newborns?
- ⑨ Is there a rel. between T4 and TSH values?  
→ TSH value more sensitive to indicate thyroid function
- ⑩ - Different sensitivities in analytical capability for TSH / T4  
↳ Standard up to Am Thyroid Assn  
↳ Standard methods
- ⑪ Do all specimens go to same labs?  
→ yes - and randomly selected for T4 measurement.
- ⑫ Lamm study - distinction of 2 zip code areas ab. those receiving radioactive contaminated water ab. dt. well & of time
- ⑬ Gibbs study - land no littered → airbone exposed to wastes @ Al plants.
- ⑭ Graph distribution between 2 cities.  
→ other stat test beyond nonparametric if you remove  $\phi$  values in data set  
~~Graph~~ → are these test where you worked w/ biostatistics in MI

✓ ⑯ mean 8.59 } TTH values in CA  
median 6.0 }

- ⑯ does lab use some quantitative relationship  
on data to trigger - is the difference  
just triggered by quality control measures.
- ⑰ need to know iodine in diet v. iodine in water?
- ⑱ - how do you define city supply of 100%  
- were all areas on the City Supply  
v. other possible DW sources  
- are the people within those areas that  
get that water somewhere else?  
→ only zip codes from Yuma included  
(City)
- ⑲ ⑯ did you had ⑯ PCs in the water?  
↳ since those are also associated  
with increased thyroid function.
- ⑳ → is Yuma more agricultural based  
than Flagstaff?  
→
- ㉑ measurements of non-detects in Flagstaff  
- when samples taken  
- frequency  
- time of year

(22) What about Ar-Dots advisory to pediatricians in Yuma?

- APHS let Governor's office & AZ know
- ~~Pediatric~~ fax from water sent out re findings
  - pre assoc.
  - unknown clinical significance/ effects

(23) did you go back to compile Phoenix data?  
↳ difficult to do because of 2 drinking water

(24) When did CAP actually kick in to provide water to AZ?

(25) everybody in Yuma actually drinking water?  
What about bottled water?

(26) DHS Study - also ecological → if something found may be able to go back to ask specific questionnaires

(27) data is available for individual well use if Census tracts area or block

(28) different sources by different suppliers by different times of year

- (29) eliminate data or that only served by wells? → sim. to methodology to initiate birth defects screening  
(30) did you look at your old measurement / date of measurement?  
- were measurements stable?  
-
- (31) have analytical methods changed during 1994-1998?
- (32) how do we present this to people?  
↳ preliminary information  
↳ how do we answer the question:  
Should I drink the water?  
↳ may be too soon to provide any advice
- (33) perchlorate in bottled water?  
↳ NSFdr - hot site & bottled water
- (34) what do home treatment units  
- Las Vegas did test DW units  
and they did remove perchlorate.
- (35) could you treat their DW w/ RO  
as they treat discharge w/ RO  
(plastic)
- (36) does state need to review their action level?

~~John Miller~~

~~Longf~~

~~Anna Jack~~

~~A. J. Smith~~

(37)

- too early to comment on association → i.e.
  - not sure what it means
  - don't know if there is assoc. with prochloroate
  - haven't rec'd response from Yuma City Health Office or any doctors

(38)

- rel. between thyroid function / increased perinatal care

(39)

View

- we need to be worried about T<sub>3</sub>/T<sub>4</sub> →

hypothyroid - thyroid interactions

= T<sub>4</sub> stimulates TSH -

T<sub>3</sub>

- T<sub>4</sub>/T<sub>3</sub> are associated with birth defects not TSH

~~PCBs~~

- may be too simplistic to say that TSH is "more sensitive" as trigger to cause T<sub>3</sub>/T<sub>4</sub> changes
- (40) Many M following question ① what, if any, other deionizing factors (ex. ~~PCBs~~ asked about was PCBs) were looked at or discussed in study that would play in relationship of effect/exposure  
(No)

- ② copy of actual paper/study less will ch on this

- ③ did you have a control for population? (playstatt)  
as compared to having reference

- ④ NE study - there babies actually hypothyroid compared to controls

(41)

Spirley Williams

- ① want to see slides - send to  
② — comm strategy issues

} Jett Field  
Mike Beringer  
Jake Taylor

(42)

Clynd Overstreet

- Has this newborn screening program data been looked at for TSH levels (lower 10% of T4)
  - ↳ are the study differences within normal range anyway? No → stat. difference v. clinical difference
- What about doing similar analysis on a community where exposure is higher than Egypt?
  - ↳ does that help us see difference more clearly
  - ↳ help validate study results.

(areas w/ 100% DW prevalence)

(43)

Does dose define what perturbations can be seen @ lower doses exposure levels?

~~higher doses~~

(44)

List of other ongoing studies

(45)

Why is TSH used to indicate thyroid function for newborns?

- (46) ~~What~~ alternatives to drinking municipally  
supplied water?  
↳ may not be sufficient information  
to say what this means.  
↳
- (47) DHS, Comm. pt. on disinfection by products  
Corine Li
- (48) - how do we couch this in the right  
scientific context?